CONTROL OF VOLUNTEER COTTON IN THE SOUTHERN ROLLING PLAINS D.R. Drake

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Abstract

Volunteer or non-commercial cotton is an important pest in the southern rolling plains of Texas as a competitor in cotton and other crops and as a boll weevil host in fallow and non-crop areas where continued eradication efforts require control of host plants. Controlling volunteer cotton plants has also become more difficult with genetic tolerance to broad spectrum herbicides, such as glyphosate and glufosinate. Herbicide trials were conducted in 2009 and 2010 in the Southern Rolling Plains of Texas to identify products that would control glyphosate tolerant cotton in rotational or fallow ground. Established and novel herbicide products were evaluated for percent control, plant regrowth, and boll weevil hostability. In 2009 Buctril, Ignite, and Huskie provided good initial control of larger plants but with favorable growing conditions the plants regrew and were considered boll weevil hostable after 37 days. Milestone and Chapparel provided poor initial control with larger plants in 2009 but plants were not boll weevil hostable as fruit was aborted and growing points were killed. Milestone and Chapparel controlled smaller plants in 2010. Trials in 2010 with Sharpen at 1 fl. oz. per acre averaged 100 percent control of 3-5 leaf cotton. Sharpen and Distinct tank mixed with glyphosate provided excellent control of 3-5 leaf cotton at several rates. General annual grass and broad leaf weed control was also excellent with these treatments. These products show potential to control volunteer cotton and further work is needed to develop a viable management program.